#### **PATENT**

#### **CERTIFICATE OF MAILING**

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to Commissioner for Patents, Washington, D.C. 20231 on

May 26, 2005

May 26, 2005

Date

Serial No.:

10/791,508

Filed:

March 2, 2004 Applicant(s) David Peters

Title:

COMPOSITE SOCKET WRENCH

Art Unit:

3723

Examiner: Atty. Dkt: Alvin J. Grant

SAWT-13R

Cincinnati, Ohio 45202

May 26, 2005

Commissioner for Patents P. O. Box 1450 Alexandria, VA 22313-1450

Sir:

#### **DECLARATION OF DAVID PETERS**

- I, David Peters, state that:
- I am the inventor of the invention claimed in the above application. 1.

I am also president of Ready Products, Inc., owner of the above application.

- The invention is a hollow, composite ratchet wrench that allows 2. the sockets to be stored within the hollow handle.
  - The wrench is injection molded using fiber-reinforced nylon. 3.

- 4. We originally started selling a metal version of this, and we obtained a patent on that product. There was initial success, but the product itself was too heavy, and sales declined.
- 5. I decided to try injection molding the wrench using fiber-reinforced nylon. It was not clear that this product would be practical and, in particular, whether it would be strong enough to meet end use requirements. The hollow handle was required to store the sockets, but this would also provide a weakness that could make the product virtually useless. This, in fact, was not the case. I had the product tested using an independent test facility. We tested both a 1/4-inch drive and a 3/8-inch drive. The report is attached hereto as the Appendix.
- 6. The report shows that the hollow handle created a point of weakness. However, it was surprisingly determined that the 1/4-inch drive failed at 198.9 ft-lbs, while the 3/8-inch drive failed at 645.6 ft-lbs. The 198.9 ft-lbs required to break the 1/4-inch drive ratchet is far in excess of any force that would typically be applied to a 1/4-inch ratchet wrench. Further, the 645.6 ft-lbs of pressure required to break the 3/8-inch drive ratchet was much stronger than anything that should be encountered under normal use by this product.
- 7. Thus, although, as expected, the design had a point of weakness, it was still much stronger than needed for the end use application. This was very surprising.
- 8. We have been selling this product and have had a great deal of success. Comparing this to the original metal product, it is our expectation that the

plastic-injection molded product will be much more successful than the metal product. We have been able to sell this through many well-known hardware stores, including: ACE Hardware, Do-It-Best Hardware, Home Hardware and Orgill Brothers, as well as others. Sears is currently testing this product. Based on our data, it is our expectation that we will also be able to stock this in Sears. Thus, the commercial success of this product versus the metal product is surprising, to say the least.

9. I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the subject application or any patent issued thereon.

5/25/05 David Peters



# **Ratchet Evaluation**

Approved by:

Wintec Inc.

Ed Winterfeldt

Metallurgical Engineer
For: Ready Products

David Peters

W2892-05L

# WINTEC Inc.

#### **ENGINEERING SERVICES**

11145 Luschek Drive Cincinnati. OH 45241 (513) 489-8800 FAX (513) 489-0008 www.wintecinc.com

Quality Assurance Fallure Analysis Metallurgy Welding

Date:

March 30, 2005

Customer:

Ready Products

Contact:

David Peters '

Job #:

W2892-05L

Refers to:

Evaluation of ratchets.

Objective:

Perform torque testing until failure and weight measurement on the Ready Tool.

Perform torque testing until failure on the Ready Tool 1/4" drive and 3/8" drive.

### **Analytical Procedure:**

1.0 Weight Measurement

2.0 Torque Testing

#### Results:

#### 1.0 Weight Measurement

1.1 Weight of each ratchet with and without the sockets was taken, reference Table 1.

Ratchet	Weight without Sockets (oz.)	Weight with Sockets (oz.)
1/4" drive Ready Tools	3.6	7.9
3/8" drive Ready Tools	7.9	17.5

Table 1: Ratchet weight.

## 2.0 Torque Testing

2.1 Torque testing was performed until failure, reference Table 2.

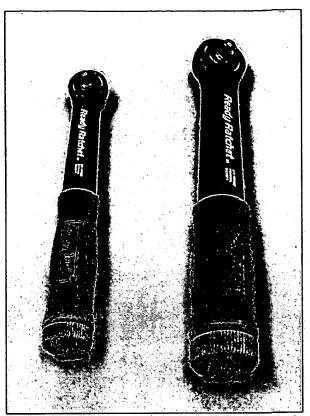
Ratchet	Torque at Failure (ft-lb)	Failure Location
1/4" drive Ready Tools	198.9	Handle
3/8" drive Ready Tools.	645.6	Handle

Table 2: Torque at failure.

2.2 Reference photographs 2 thru 3 for broken ratchets.



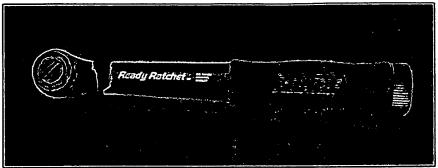
# **Ratchet Evaluation**



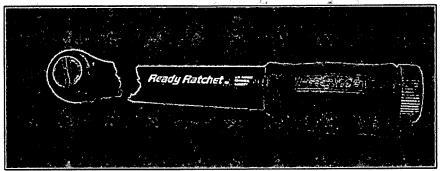
1. Ratchets as received by Wintec, 1/4" Ready Tools, 3/8" Ready Tools.



## **Ratchet Evaluation**



2. 1/4" Ready Tools ratchet handle failed during torque test.



3. 3/8" Ready Tools ratchet handle failed during torque test.